

CLAIMS

1. A device for exchanging data between moving vehicles (19) comprising a receiving module (4) for receiving data messages broadcasted from other vehicles (19) equipped with said device, sensing and processing means (6, 9, 15) for generating vehicle-specific data and a broadcasting module (5) for broadcasting data messages including said received data and said vehicle-specific data, **characterized in** that the device further includes data processing means (16, 17) inseparably combining corresponding data from said received data and from said vehicle-specific data to synthesis data messages comprising time stamp data, that the broadcasting module (5, 126) is adapted to broadcast said synthesis data messages and that said data processing means (15, 16) include at least one evaluation member (66, 73, 78, 79, 80, 81, 82, 83) for evaluating the contribution of received synthesis data messages according to said time stamp data.
2. A device according to claim 1, characterized in that the at least one evaluation member (66, 73, 78, 79, 80, 81, 82, 83) attributes a higher evaluation value for more recent received synthesis data and lower evaluation value for older received synthesis data.
3. A device according to claim 1 or claim 2, characterized by further including a stochastic process controller (104) comprising at least one stochastic time generator (105, 106, 107) for rescheduling synthesis data messages upon receipt of activity signals of the receiving module (104, 125).
4. A device according to one of the claims 1 to 4, characterized by further including presence message receiving

and generating means (5) adapted to receive and generate presence data messages with a data length that is lower than the data length of synthesis data messages.

- 5 5. A device according to claim 3 or claim 4, characterized in that said broadcasting module (5, 126) and said stochastic process controller (104) are sensitive for the number of received presence data messages per time unit.
- 10 6. A device according to one of the claims 1 to 5, characterized in that the vehicle-sensitive data include the mean velocity of the respective vehicle (19) within a specific track segment.
- 15 7. A device according to one of the claims 1 to 6, characterized in that the vehicle-sensitive data include direction indication data of the respective vehicle (19).
- 20 8. A device according to one of the claims 1 to 7, characterized by an input module (11) and additional data processing means (43, 47, 48, 49, 90, 91, 92, 93, 94) for processing of additional user-specific data.
- 25 9. A device according to one of the claims 1 to 7, characterized by further including a route map skeleton generator (132) and a route map skeleton extractor (136) for generating route location data extracted from synthesis data messages.